

# Public Workshop on the Emergency Levee Erosion Repair Project



Yuba City, California  
June 19, 2006



US Army Corps  
of Engineers ®

# Items to be Discussed

- Purpose of Public Meeting
- Overall Project Description
  - Background
  - Estimated Schedule
- Yuba/Sutter critical erosion sites
  - Specific sites: Bear River sites River Miles 2.4 & 10.1
  - Repair Designs
  - Environmental Issues
  - Photographs of affected sites
  - Repair Schedules
  - Routes
  - Additional Sites
  - Material quantities
  - Additional Sites
- Where to get additional information
- Q & A

# Purpose of the Public Workshop

- Inform local community and general public about the project work
- Answer questions from the public
- Discuss the potential for other levee repairs

# Notified Stakeholders of Public Meetings

- **Federal Elected Officials - Senate and House of Representatives;**
- **State Elected Officials - Governor, Senate and Assembly;**
- **County Officials - Board of Supervisors, County Administrators;**
- **City Officials - City Councils, City Managers;**
- **Federal Agencies;**
- **State Agencies;**
- **Water Agencies - Water Districts, Irrigation Districts, Water Companies, etc.**
- **Reclamation Districts**
- **Business Organizations - Chambers of Commerce, BIA, etc.**
- **Community Organizations - Farm Bureaus, RCRC, Port of Sacramento, etc.**
- **Environmental Organizations - Nature Conservancy, Friends of the River, etc.)**
- **General Public – Advertisements in local and regional newspapers.**

# Background

# Central Valley Flood Control System Projects:

- **2.5 million people**
- **2 million acres of cultivated land**
- **200,000 structures with an estimated value of \$57 billion**

# The system is aging and under funded



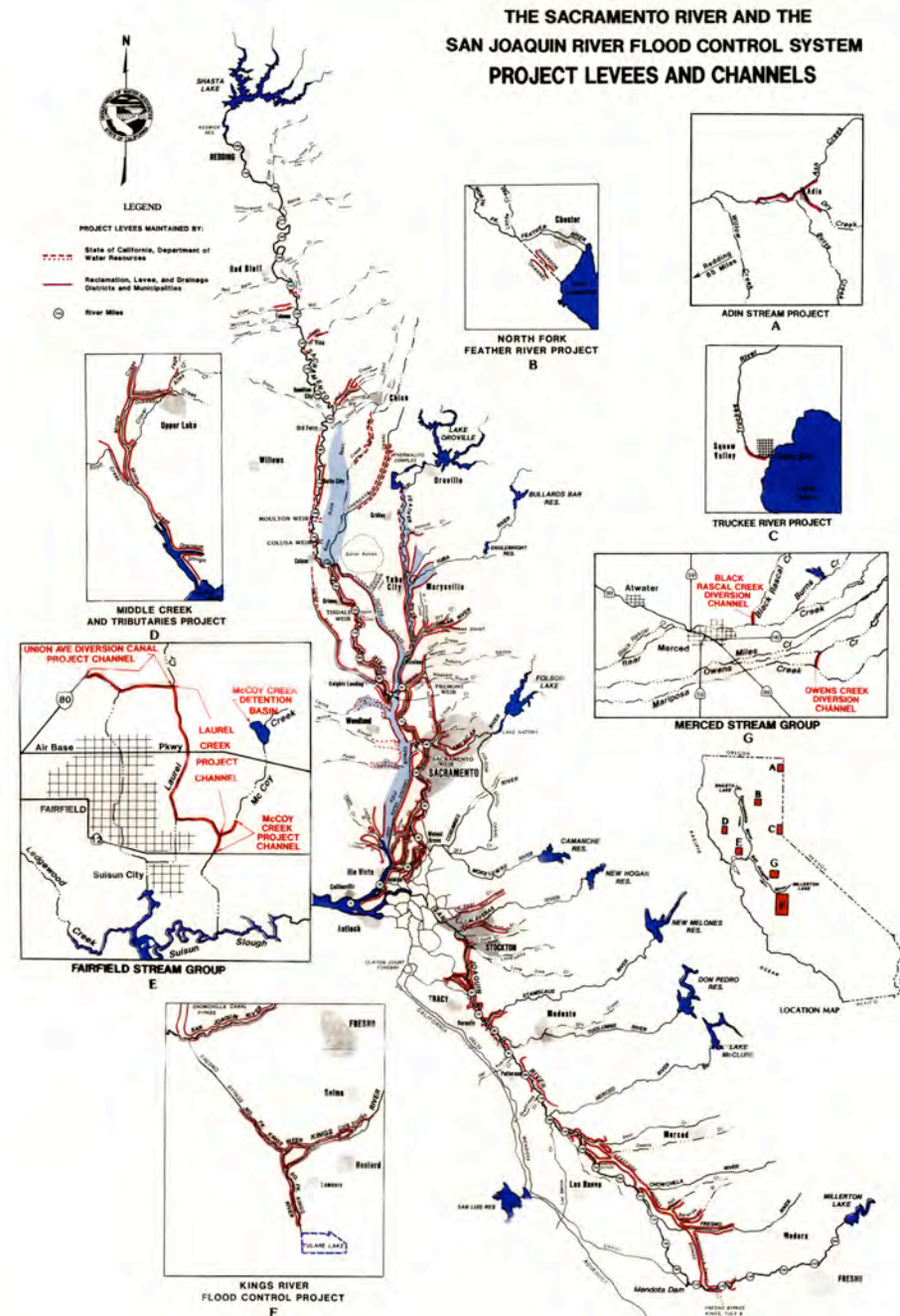
## KEY CHALLENGES IN CENTRAL VALLEY

1600 miles of Federal Project Levees  
 700 miles of local Delta Levees  
 2300 miles of Levees

- Old levees, many originally built by farmers, most without adequate engineering

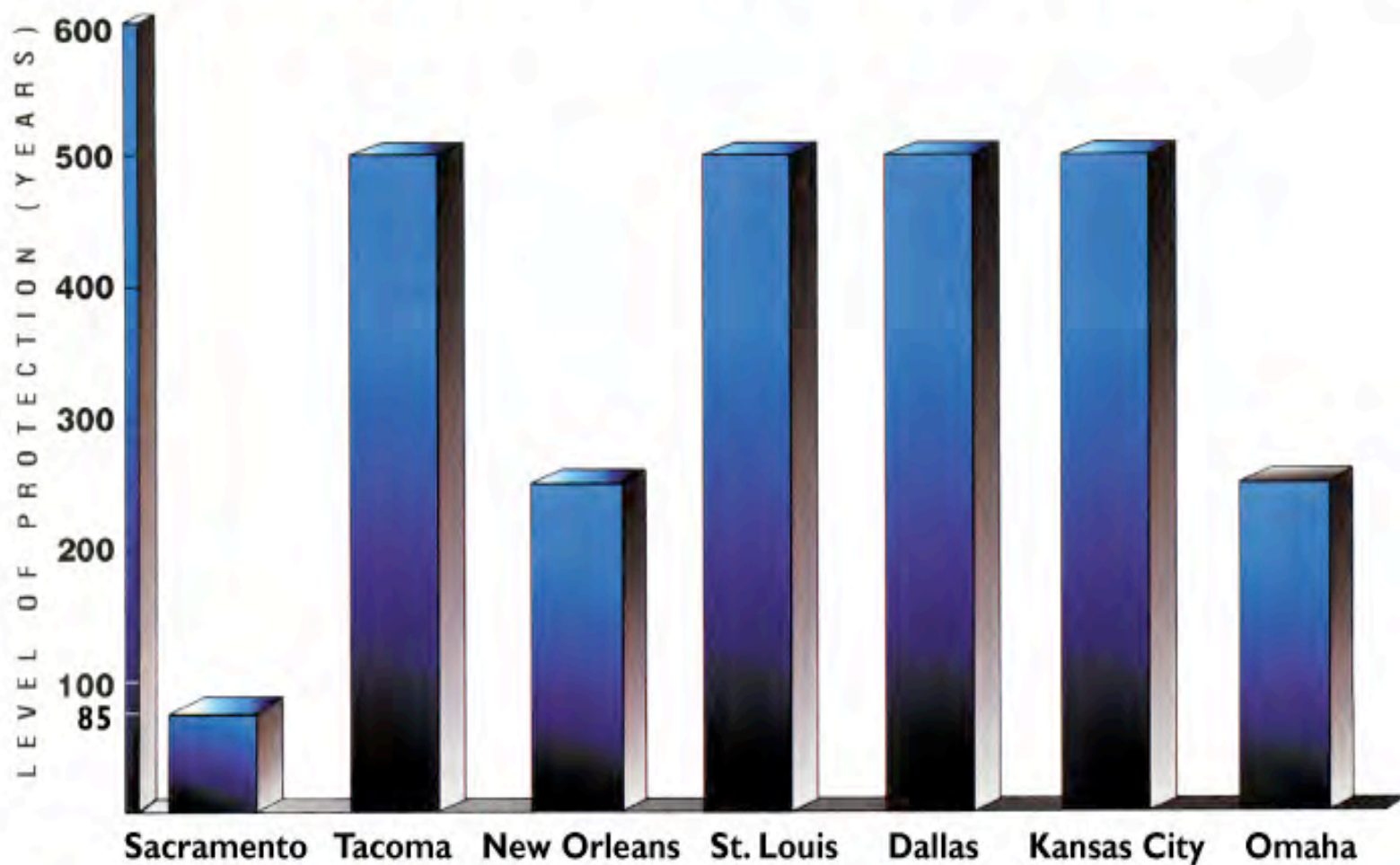


- Aging system, continuing deterioration (e.g. erosion, seepage distress, burrowing rodents)



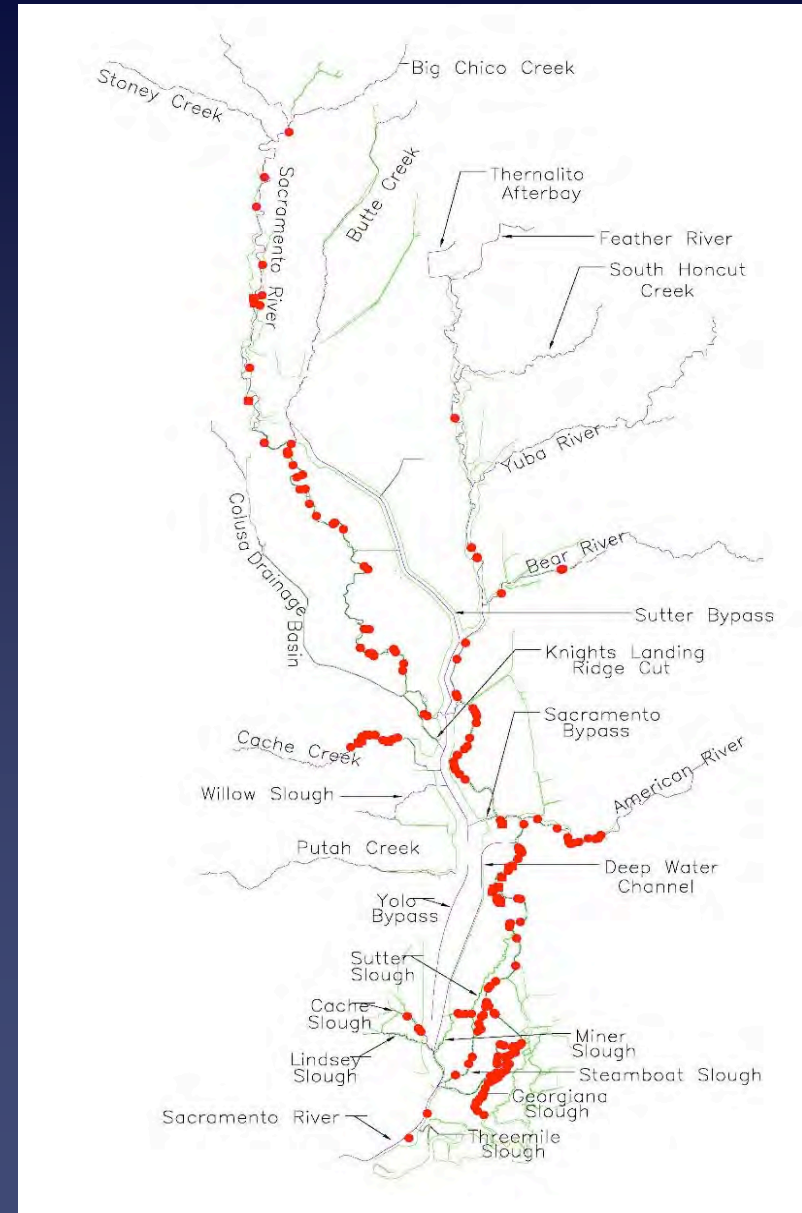


# Sacramento's Level of Flood Protection by Comparison to other River Cities





# Levee and Bank Erosion

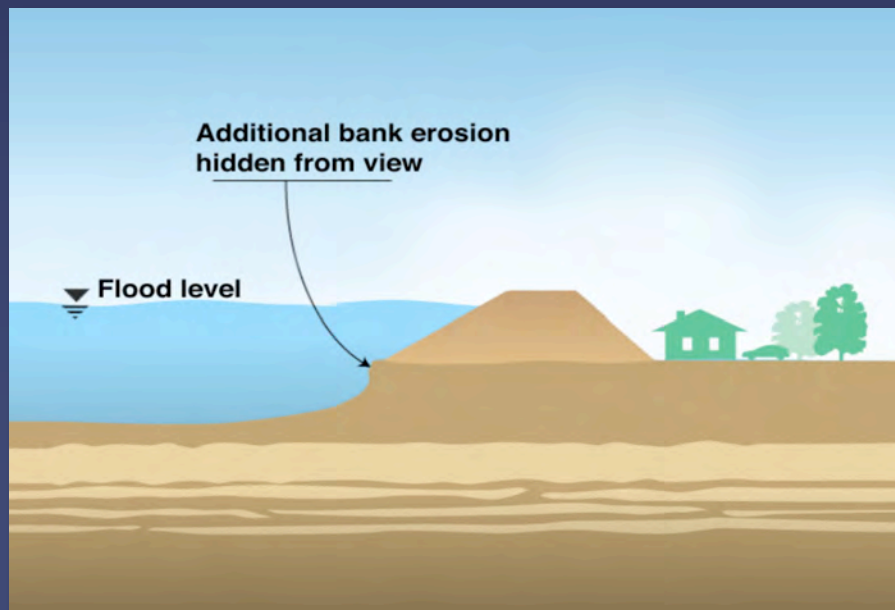
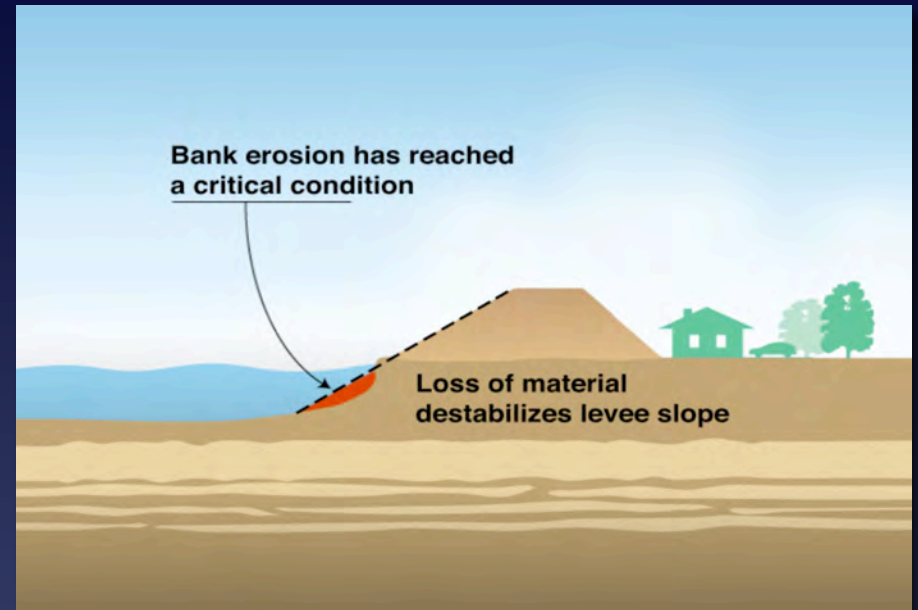


# **2005 US Army Corps of Engineers Field Reconnaissance Study**

This December 29, 2005 Study is the basis for 24 sites on the State's levee system being identified as being "critical".

Critical sites are levee locations where the erosion encroaches near or into the levee crown and where further erosion may result in a bank failure. These sites are recommended as the highest priority for repair.

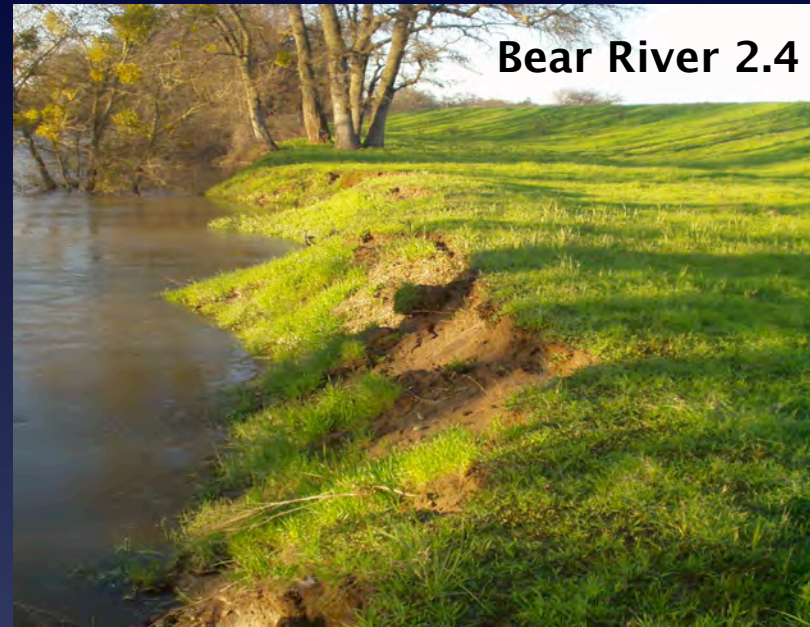
# Levee Erosion





## State Emergency Declaration

- Governor declared State of Emergency for State's levee system (February 24, 2006)
- Provides additional resources to fast-track the repair of critical erosion sites before the next flood season
- Streamlines California Permitting Processes



**Critical Site:** Sites where further erosion may result in a bank failure, which encroaches near or into the levee crown and is recommended as the highest priority for repair

**24 Original Critical Sites**

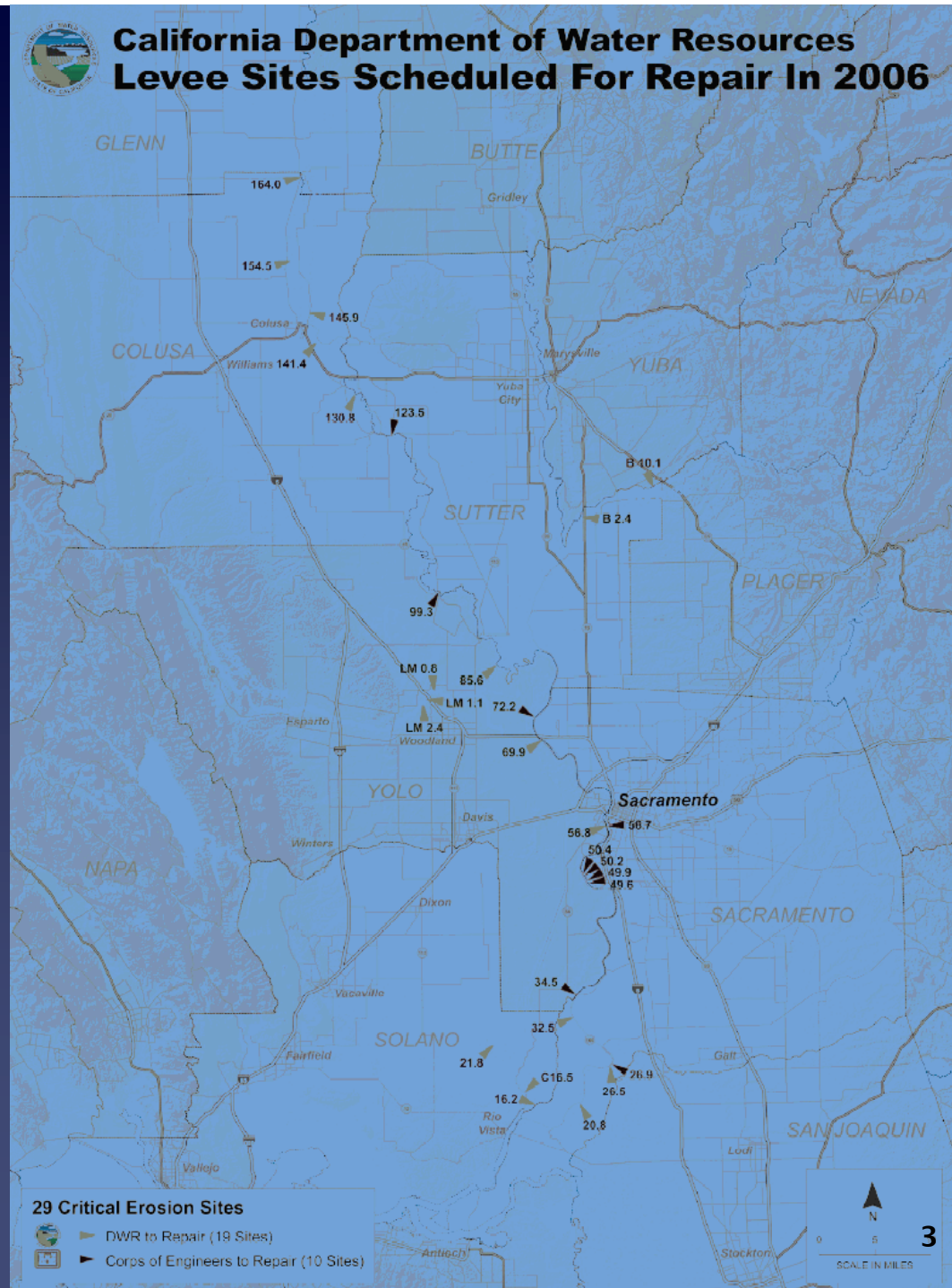
**5 Additional Sites Found to be Critical**  
(previously potentially critical sites that have deteriorated over the last year)

**29 Current Critical Sites**

**10 Critical Sites to be repaired by USACE**

**19 Critical Sites to be repaired by DWR**

**29 Current Critical Sites**



# Emergency Levee Repair Project General Schedule

Design,  
Right of Way,  
Permitting, &  
Bid & Award



Erosion Repair  
Contracts



Vegetation &  
Maintenance Contract



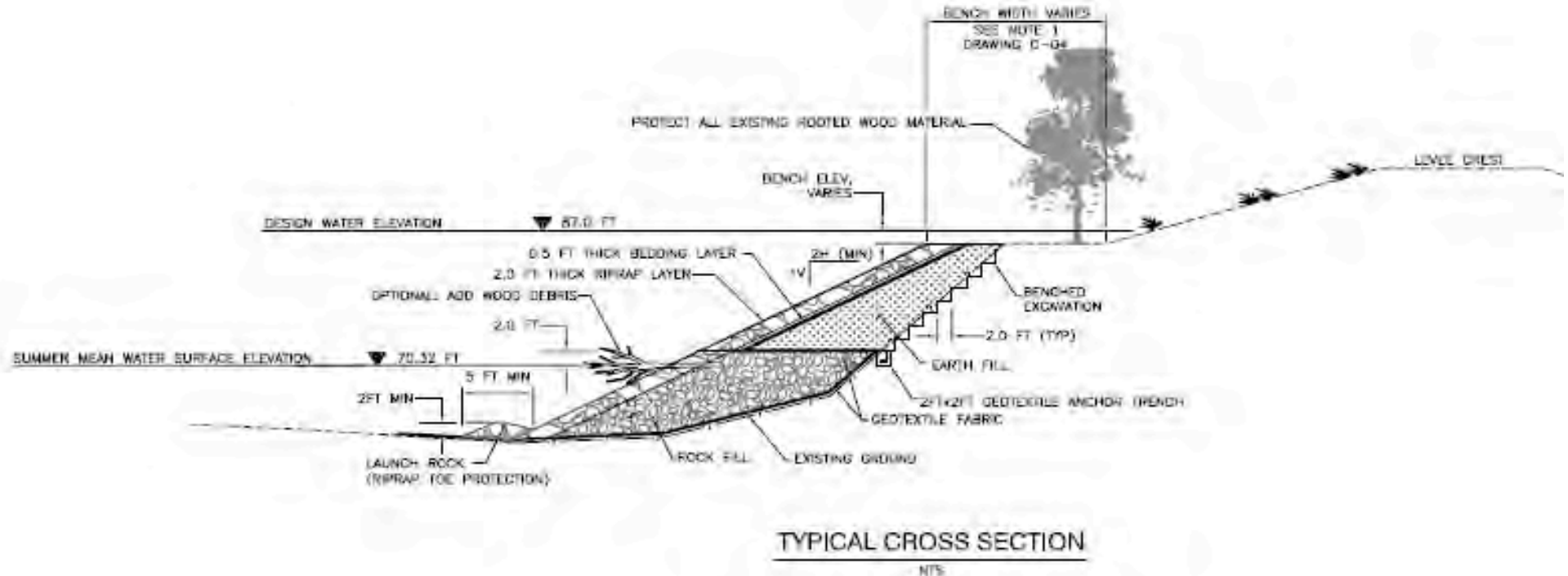


## Types of Repairs for Both Bear River Sites

- Rock Fill -- Most repair work will consist of placing soil and rock on the water side of the levee, with the goal of reestablishing the damaged levee slope and supporting toe structure. Rock for construction will be transported to the sites by barge and/or truck.

# Typical Rock Fill Repair Design

## Bear River Sites 2.4 & 10.1



# **Environmental Issues and Permits**

# **Endangered Species – U.S. Fish and Wildlife Service**

- **Delta Smelt and critical habitat (excludes Bear River)**
- **Valley Elderberry Longhorn Beetle**
- **Giant Garter Snake**

# **Endangered Species – National Oceanic & Atmospheric Administration Fisheries Service**

- **Winter Run Chinook (and critical habitat)**
- **Spring Run Chinook (and critical habitat)**
- **Steelhead (and critical habitat)**
- **Green Sturgeon (recently listed)**

# Efforts to Protect Environment

- DWR will incorporate environmental features to mitigate impacts, including:
  - Preserve rooted vegetation in water and on benches.
  - Include woody material to preserve fish habitat and reduce erosion.
  - Avoid Valley Elderberry Longhorn Beetle habitat.
  - Pre-survey for Bank Swallow, Swainson's Hawk and burrowing owl.



# Mitigation Components Example

Willow stalk  
plantings

In-stream  
woody  
material (IWM)







# Environmental Permitting and Right of Way

All environmental permits and right of way will be  
secured by DWR and USACOE

# Right of Way

- Goal is to work in partnership with land– owners to secure access to levee sites and/or adjacent property when necessary
- Temporary access for construction purposes
- For more information, visit the Property Owners web page at:  
[www.levees.water.ca.gov/owners/](http://www.levees.water.ca.gov/owners/)

# **Bear River Sites Scheduled for Repair**





## **Bear River RM 2.4**

### **Location/Truck Route:**

- Highway 70; west on Rio Oso Road, south on Levee Road.

### **•Repair type:**

- Rock fill

### **Repair Length:**

- 1,200 feet (approx.)

### **Repair Schedule:**

- DWR Repair Site
- Designs – 05/16/06
- Advertised – 05/19/06
- Bid Award – 06/14/06
- Notice to begin – 06/28/06
- Expected completion – 11 /01/06

### **Estimated Repair Cost:**

- \$4.9 million



## **Bear River RM 10.1**

### **Location/Truck Route**

- From Highway 65, west on Levee Road (north of Wheatland Road) through access gate.

### **Repair Type**

- Rock fill

### **Repair Length**

- Up to 1,500 feet

### **Repair Schedule**

- DWR Repair Site
- Designs – 05/16/06
- Advertised – 05/19/06
- Bid Award – 06/14/06
- Notice to begin – 06/28/06
- Expected completion – 11/01/06

**Estimated Repair**



# Material Quantities

## Bear River Sites:

- RM 2.4
  - 42,600 tons of soil and rock material (2,130 truck trips)
- RM 10.1
  - 40,000 tons of soil and rock material (2,000 truck trips)

Note: Total estimates of trips based on typical truck loads of 20 tons each.





# Typical Hours of Construction

## Bear River Sites

### RM 2.4 & 10.1

- 7 a.m. to 7 p.m. Monday through Saturday

Note: Hours and working days may be extended for some durations during construction to ensure timely completion of work; Times and work days listed may vary.

# Proposed Sites in Yuba/Sutter Counties

## Additional Sites – Proposed by local officials as critical

### **Sutter Bypass**

- LM 9.6 – Low erosion;
- LM 9.68 – Low erosion;
- LM 9.7 – Low erosion;
- LM 19.57 – Low erosion but several boils observed;
- LM 19.6 – Low erosion but several boils observed;
- LM 0.63 – Medium erosion.

### **Yankee Slough**

- River Mile 1.75 -- Medium erosion.

### **Butte Creek**

- Levee Mile 14 – High erosion

### **Feather River**

- Levee miles 2.7 & 9.3 – Low erosion;
- Levee mile 14 – Medium erosion;
- Levee miles 7.4 – High erosion.

## Additional Critical Site in Sutter County Scheduled for Repair

### **Sacramento River RM 123.5**

- Located south of Meridian, Sutter County
- One of 10 sites for repair by U.S. Army Corps of Engineers
- Approximately 400 feet length of repair



# Project Managers

- DWR Executive Sponsor, DWR Deputy Director *Les Harder*
- DWR Project Manager, *Don Kurosaka*
- URS Project Manager, *Loren Murray*
- Design/Construction Manager, *Ron Lee*
- USACOE Project Manager, *Stan Wallin*

E-Mail: [leveerepair@water.ca.gov](mailto:leveerepair@water.ca.gov)



**For More Information  
visit DWRs Levee Website at:**

[www.levees.water.ca.gov/](http://www.levees.water.ca.gov/)

<http://www.water.ca.gov/>

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**DWR Levee Repair  
Department of Water  
Resources**

1416 Ninth Street  
Sacramento, CA 95814

Mailing Address:  
P. O. Box 942836  
Sacramento, CA 94236



### DWR Levee Repair Home - News and Information

"Increasingly severe weather systems each season have accelerated the deterioration of the state's levee system to the point where they are now in danger of failing during the next major rainfall or earthquake. This worsening situation creates conditions of extreme peril to the public and property protected by the levees, to the environment, and to the very foundation of California's economy."

-- Gov. Arnold Schwarzenegger in a letter to  
President Bush dated February 27, 2006



**Invitation to Contractors** -- DWR has scheduled a contractor outreach workshop at 9 a.m. Monday, May 8 to provide an overview of the Emergency Levee Erosion Repair Project and explain the process for applying for construction contracts to prospective contractors. (05/03/06)

[► more...](#)



**State-Federal Agreement on Levee Repairs** -- Governor Schwarzenegger and the Bush Administration have finalized an agreement for an expedited permitting process to fix 29 critical levee sites in the Sacramento River basin by November 1, 2006. (05/03/06)

[► Blog Post...](#) [► Press Release...](#) [► MOU...](#) (.pdf)



**Five Levee Sites Added to Critical Erosion List** -- Following Governor Schwarzenegger's plan to restore California's failing levees, DWR has added five levee sites to its critical erosion list. This brings the total number of

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Emergency Services**

#### Related Links

- [Levee News Archive](#)
- [Disaster Preparedness Tips](#)
- [Governor's Emergency Declaration](#)
- [Governor's Executive Order](#)
- [Overview Map](#)
- [Flood Protection Levels](#)

# Questions & Answers

# Thank you

